



APPLICATIONS MATCH STUDY

A Perspective on Unmet Demand

1998-99 Follow-up and Fall 1999

Office of Financial Management

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THE DEMAND FOR HIGHER EDUCATION may be separated into two components: (1) the actual enrollment, and (2) unmet demand. The **enrollment** projections are based upon population forecasts by age and sex under the assumption that participation rates will remain at the current levels. If budget constraints did not limit enrollment, this projection alone would represent expected demand for higher education. However, participation rates have been limited by budget constraints since the early 1980s and by enrollment lids until fiscal year 1994.¹ Potential **unmet demand** is assessed through the applications match process, which matches applicants to Washington public four-year institutions with registered students in Washington public and independent higher education institutions.

The Applications Match Study

The goal of the *Applications Match Study* is to obtain an unduplicated count of qualified individuals applying to Washington public four-year higher education institutions who were not served by the higher education system of the state. The study is designed to provide a more accurate account of unserved applicants than can be obtained by adding the numbers of qualified applicants who are denied admission by the individual institutions. The single institutional perspective does not adjust for multiple applications by individual students; nor does it account for students denied admission by one institution, but admitted and served by another; nor does it distinguish between Washington residents and out-of-state applicants.

An applications match study has been conducted annually since Fall 1987. The data requested from institutions as well as the assumptions made in the matching process varied slightly over the first three years of the study. Data for Fall 1990 through Spring 2000 are not entirely comparable with those of preceding years.

A new perspective was added to the *Applications Match Study* beginning with the 1990-91 data, when data were collected for fall, winter, and spring terms. This update continues the follow-up portion of the study, started for 1990-91, providing an estimate of unserved applicants for the entire 1998-99 academic year, including persons applying for Winter 1999 and Spring 1999 terms, and matches against enrollment data for Winter 1999, Spring 1999, and the entire 1999-2000 academic year.

¹ In 1993 1st Special Session Washington Laws: "Each institution shall enroll to its budgeted biennial average FTEs, plus four percent or minus two percent. ... [A]n amount equal to the student quality standard multiplied by the number of FTE students above or below the variances shall revert to state general fund." This language was removed effective Fiscal Year 1994.

Limitations

Non-applicants or incomplete applications. Applications to higher education institutions are only one measure of demand for higher education, although they are still the most concrete and objective indicator available. Other forms of demand are not fully captured by applications data, such as individuals who fail to submit applications to four-year institutions because they lack the financial resources or other support services needed to attend. Examination of applicant and enrollment data provides a measure of unmet need among Washington residents who have taken the step of applying to a four-year institution. Persons who do not submit an application because they lack the resources to participate in higher education, or who believe they will not be admitted due to enrollment limits, are not counted by this measure of unmet need. Persons who do not submit a complete application are also not counted by this measure of unmet need.

Applicants not admitted to institution of first choice. In this study, any applicant who is admitted to a four-year higher education institution is considered to be served by the higher education system of the state, whether the person actually enrolls or not. Some would suggest that unless an applicant is enrolled by his/her first-choice institution, the applicant is not completely served by the system. Applicants' priorities are not recorded in any administrative databases; they have not been a factor in determining whether an applicant has been served by the state's higher education system.

Applicants attending out-of-state institutions. Just as Washington higher education institutions serve many out-of-state residents, many Washington residents leave the state for their post-secondary education. Undoubtedly, many of the applicants who apply to in-state institutions, but never enroll, are attending institutions outside of Washington.

Data Elements

As in the past, application and registration data were requested and received from all public four-year institutions. Registration data from independent colleges and universities² and from community colleges were also used in the study. All type of applicants, i.e., applicants from high school, transfer applicants from two- and four-year institutions, returning students, and graduate and other post-baccalaureate applicants, are included in the study. A database emphasizing the individual applicants was created. For each applicant to public four-year institutions, information related to all applications and to enrollment status was developed. Social security number, name, and birth date were the basis of the matching procedure. Extreme care was taken to avoid any inappropriate matches.

An applicant's ***county of permanent residence*** is the county of permanent residence captured at the time of application and stored in the enrollment file, if the applicant was enrolled in a four-year institution. If the applicant did not subsequently enroll, a county code based upon city, state, and ZIP code of permanent residence at the time of application was used.

² Independent institutions providing enrollment data for 1998-99 and/or 1999-2000 included Gonzaga University, Heritage College, Pacific Lutheran University, St. Martin's College, Seattle Pacific University, Seattle University, University of Puget Sound, Walla Walla College, Whitman College, and Whitworth College.

Applicants were classified as "**accepted**" if they were admitted to at least one public four-year institution. They were classified as "**denied**" if they were denied admission to at least one public four-year institution and were not admitted by any other. If an applicant was neither admitted nor denied, but instead withdrew an application, submitted an incomplete application, or if the admission status was not provided by the institution, the applicant's admission status was classified as "**other**."

Status of Applicants for Fall 1999 - Total Applicant Pool

There were 62,785 applicants, who submitted 73,740 applications to public four-year higher education institutions in Washington State for Fall 1999. The subsequent status of these applicants is outlined in Table 1a.

- Of the 38,088 Washington resident applicants for Fall 1999, 25,700 were enrolled at one of the public or independent four-year higher education institutions in Washington during Fall 1999. An additional 2,760 were enrolled in a community college during Fall 1999.
- A total of 9,628 Washington resident applicants for Fall 1999 were not enrolled in any of the higher education institutions involved in this study during Fall 1999.
- Of the 9,628 Washington resident applicants for Fall 1999 not enrolled during Fall 1999, 5,525 were offered admission to a public four-year institution for Fall 1999. These applicants are considered to be served by the higher education system. Undoubtedly, many of these applicants enrolled in out-of-state institutions. The most recent student migration studies conducted by NCES³ for Fall 1996 indicate that over 5,600 Washington resident freshmen enrolled in out-of-state institutions.
- Application information provided for 1,890 of the non-enrolled Washington resident applicants for Fall 1999 indicated admission status unknown, a withdrawn application, an incomplete application, or that no admissions decision had been made as of the tenth class day of the fall term. These applications have been excluded from the analysis.
- Finally, 2,213 of the non-enrolled Washington resident applicants for Fall 1999 were denied admission by at least one public four-year institution and not admitted by any other for Fall 1999. Of these, 1,503 were known to have a grade point average (GPA) or admissions index (AI) acceptable for admission to a Washington four-year institution and 397 had GPAs or AIs lower than the minimum acceptable level. The GPA and AI for 313 of these applicants are unknown. Some of these 313 applicants may have had acceptable GPAs or AIs.

Results of the analysis indicate that for Fall 1999 between 1,503 and 1,816 qualified individuals were denied admission to a public four-year institution and not enrolled in any other public or private Washington higher education institution during that same term. Of the 1,816 potentially unserved Fall 1999 applicants, 287 were either enrolled or accepted for admission for Winter or

³ U.S. Department of Education. National Center for Education Statistics. *Digest of Education Statistics* 1999, NCES 2000031, by Thomas Snyder and Charlene Hoffman. Washington DC: 2000, Table 206. (<http://nces.ed.gov/pubs2000/digest99/>)

Spring 2000 terms. When 2000-2001 data become available, it is likely that the figure of 1,529 potentially unserved Fall 1999 applicants will be reduced.

Status of Applicants for Fall 1999 - Undergraduate Applicants

There were 44,468 undergraduate applicants, who submitted 54,870 applications to public four-year higher education institutions in Washington State for Fall 1999. The subsequent status of these undergraduate applicants is outlined in Table 1b.

- Of the 32,827 Washington resident undergraduate applicants for Fall 1999, 22,309 were enrolled at one of the public or independent four-year higher education institutions in Washington during Fall 1999. An additional 2,719 were enrolled in a community college during Fall 1999.
- A total of 7,799 Washington resident undergraduate applicants for Fall 1999 were not enrolled in any of the higher education institutions involved in this study during Fall 1999.
- Of the 7,799 Washington resident undergraduate applicants for Fall 1999 not enrolled during Fall 1999, 4,919 were offered admission to a public four-year institution for Fall 1999. These applicants are considered to be served by the higher education system.
- Application information provided for 1,611 of the non-enrolled Washington resident undergraduate applicants for Fall 1999 indicated admission status unknown, a withdrawn application, an incomplete application, or that no admissions decision had been made as of the tenth class day of the fall term. These applications have been excluded from the analysis.
- Finally, 1,269 of the non-enrolled Washington resident undergraduate applicants for Fall 1999 were denied admission by at least one public four-year institution and not admitted by any other for Fall 1999. Of these, 852 were known to have a grade point average (GPA) or admissions index (AI) acceptable for admission to a Washington four-year institution and 274 had GPAs or AIs lower than the minimum acceptable level. The GPA and AI for 143 of these applicants are unknown. Some of these 143 applicants may have had acceptable GPAs or AIs.

Results of the analysis indicate that for Fall 1999 between 852 and 995 qualified individual undergraduate applicants were denied admission to a public four-year institution and not enrolled in any other public or private Washington higher education institution during that same term. Of the 995 potentially unserved Fall 1999 undergraduate applicants, 248 were either enrolled or accepted for admission for Winter or Spring 2000 terms. When 2000-2001 data become available, it is likely that the figure of 747 potentially unserved Fall 1999 undergraduate applicants will be reduced.

Table 1a

Fall 1999 and Updated Fall 1998 Applications Match - Fall Analysis, All Applicants.

	Fall 1989	Fall 1990	Fall 1991	Fall 1992	Fall 1993	Fall 1994	Fall 1995	Fall 1996	Fall 1997	Fall 1998	Fall 1999
Applications for Fall	65,603	67,975	73,686	78,244	80,488	79,721	76,753	75,923	73,207	74,494	73,740
Individuals:	55,352	57,419	63,203	66,880	68,830	68,218	65,478	64,640	63,337	63,732	62,785
Washington residents:	34,871	34,330	36,827	37,889	37,661	37,170	37,335	37,621	37,117	38,307	38,088
Registered four-year, Fall	22,020	22,252	23,117	23,071	24,361	24,322	24,539	24,970	24,631	25,409	25,700
Registered two-year ⁴ , Fall	4,077	3,386	3,880	4,037	3,894	3,635	3,547	3,355	3,054	3,189	2,760
Did not register, Fall:	8,774	8,692	9,830	10,781	9,406	9,213	9,249	9,296	9,432	9,709	9,628
Accepted	4,893	4,830	5,556	6,137	5,350	5,574	5,835	5,880	5,488	5,839	5,525
Other	1,161	1,604	1,508	1,410	1,229	926	967	1,047	1,589	1,715	1,890
Denied admission: ⁵	2,720	2,258	2,766	3,234	2,827	2,713	2,447	2,369	2,355	2,155	2,213
Low GPA or AI	306	380	351	486	429	449	410	408	335	351	397
Unknown GPA and/or AI	703	322	334	453	570	505	333	427	480	297	313
Acceptable GPA or AI	1,711	1,556	2,081	2,295	1,828	1,759	1,704	1,534	1,540	1,507	1,503
Unserved (excludes unknown GPA/AI)	1,711	1,556	2,081	2,295	1,828	1,759	1,704	1,534	1,540	1,507	1,503
Unserved (includes unknown GPA/AI)	2,414	1,878	2,415	2,748	2,398	2,264	2,037	1,961	2,020	1,804	1,816
Enrolled in subsequent term	na	625	700	909	716	587	558	484	571	478	na
Accepted in subsequent term	na	45	49	61	41	37	40	19	24	19	na
Qualified, potentially unserved resident applicants (includes matches against subsequent terms)	na	1,208	1,666	1,778	1,641	1,640	1,439	1,458	1,425	1,307	na

⁴ Data for the state's five technical colleges, the former vocational-technical institutes, were included in this study beginning in Fall 1997.

⁵ For each year of this study, WSU applicants coded as 'DP' (Decision Pending) have been classified as applicants denied admission to WSU.

Table 1b

Fall 1999 and Updated Fall 1998 Applications Match - Fall Analysis, Undergraduate Applicants.

	Fall 1990	Fall 1991	Fall 1992	Fall 1993	Fall 1994	Fall 1995	Fall 1996	Fall 1997	Fall 1998	Fall 1999
<u>Undergraduate</u> Applications for Fall	51,629	53,717	56,614	58,668	57,305	56,027	54,859	53,456	55,362	54,870
Individuals:	40,936	43,725	45,624	47,578	46,492	45,385	44,204	44,164	45,147	44,468
Washington residents:	29,761	31,282	32,313	32,189	31,465	31,883	31,794	31,730	32,984	32,827
Registered four-year, Fall	19,554	19,803	20,065	21,238	21,114	21,330	21,605	21,489	22,197	22,309
Registered two-year ⁶ , Fall	3,301	3,801	3,944	3,791	3,547	3,468	3,269	2,986	3,118	2,719
Did not register, Fall:	6,906	7,678	8,304	7,160	6,804	7,115	6,920	7,255	7,669	7,799
Accepted	4,337	4,787	5,304	4,587	4,723	5,120	5,015	4,864	5,180	4,919
Other	1,222	1,202	1,089	1,044	745	788	910	1,294	1,336	1,611
Denied admission: ⁷	1,347	1,689	1,911	1,529	1,336	1,207	995	1,097	1,153	1,269
Low GPA or AI	283	350	273	265	263	255	182	181	218	274
Unknown GPA and/or AI	213	231	265	183	226	143	110	162	164	143
Acceptable GPA or AI	851	1,108	1,373	1,081	847	809	703	754	771	852
Unserved (excludes unknown GPA/AI)	851	1,108	1,373	1,081	847	809	703	754	771	852
Unserved (includes unknown GPA/AI)	1,064	1,339	1,638	1,264	1,073	952	888	916	935	995
Enrolled in subsequent term	na	527	661	475	375	351	296	383	351	na
Accepted in subsequent term	na	29	31	20	18	24	10	9	10	na
Qualified, potentially unserved resident applicants (includes matches against subsequent terms)	na	783	946	769	680	577	507	524	574	na

⁶ Data for the state's five technical colleges, the former vocational-technical institutes, were included in this study beginning in Fall 1997.

⁷ For each year of this study, WSU applicants coded as 'DP' (Decision Pending) have been classified as applicants denied admission to WSU.

Interpretation of Results for Fall 1998 Analysis

Not all of the potentially unserved applicants (the "Waiting Line") are necessarily unserved.

- Some applicants may be attending institutions outside Washington or one of the independent institutions within the state for which no enrollment data are available.
- As shown for Fall 1990 through Fall 1998, many applicants denied admission for a fall term are admitted in subsequent terms. Availability of application and enrollment data for each academic term starting with Fall 1990 allows an analysis of the application and enrollment patterns of these individuals in subsequent terms. *The complete analysis for 1998-99 is presented in the section that follows.*
- Since approximately 40 percent of all individuals admitted to a four-year institution never enroll, it is likely that some of these applicants would not enroll even if accepted.

The "waiting line" as indicated by unserved applicants should not be interpreted as a measure of total unmet need for higher education. Persons who may lack the resources to attend a four-year institution, for example, and who may not submit an application, are not counted among the unserved.

Status of 1998-1999 Academic Year Applicants

Applications match data were collected for fall, winter, and spring terms beginning with the Fall 1990 data. The traditional waiting line calculations show 1,804 potentially unserved applicants for Fall 1998, 397 potentially unserved applicants for Winter 1999 and 261 potentially unserved applicants for Spring 1999. But the traditional waiting line calculation for a single term is a snapshot in time. *It is inappropriate to sum these figures for a total 1998-99 waiting line since many individuals appear in more than one term and since many individuals appearing in the waiting line in one term are subsequently admitted by a four-year institution.*

To gain a more accurate picture of the magnitude of the cumulative annual waiting line a longitudinal analysis of potentially unserved applicants was performed. For the 1998-99 academic year, 25 applicants appeared in the waiting line for more than one term. Tables 2 and 3 assign unserved Washington resident applicants to four-year public institutions for the 1998-99 academic year to the first term within the academic year for which they were denied admission.

Table 2 breaks out the total number of unduplicated applicants for the entire 1998-99 academic year who were unserved during the term for which they applied (2,376). The entire group of 2,376 applicants is termed the ***academic year waiting line prior to follow-up***. Of this group, 797 applicants were served during subsequent terms of the 1998-99 academic year or during the 1999-2000 academic year. The resulting number of applicants who were not served during either the 1998-99 or the 1999-2000 academic year is 1,579. This group of 1,579 is the ***academic year waiting line after follow-up***.

Table 2

Summary: 1998-99 Academic Year Waiting Line Prior to Follow-Up

Subsequently enrolled or accepted for admission, public or independent four-year or two-year institution	797
Remaining unserved applicants for 1998-99	1,579
Total	2,376

Table 3 shows the nature of the subsequent enrollment and application activity for the 2,376 individuals making up the 1998-99 academic year waiting line prior to follow-up who were unserved during the term for which they first applied, characterized by application type.

Table 3

Detail: 1998-99 Academic Year Waiting Line Prior to Follow-Up
 (Academic Year Waiting Line After Follow-Up is shaded)

	High School	Transfers & Returning		Post-Baccalaureate		Special/Unknown	Total
		Two-year ⁸	Four-Year	Graduate School	Other		
Subsequently enrolled, public four-year	28	159	134	84	24	9	438
Subsequently enrolled, independent four-year	6	15	7	28	2	0	58
Subsequently enrolled, community college	74	95	44	26	23	3	265
Subsequently applied and accepted for admission	3	11	7	10	4	1	36
Subsequently applied and denied admission	3	6	8	32	5	1	55
Did not subsequently apply	220	266	168	731	109	30	1,524
Total	334	552	368	911	167	44	2,376

To summarize Tables 2 and 3:

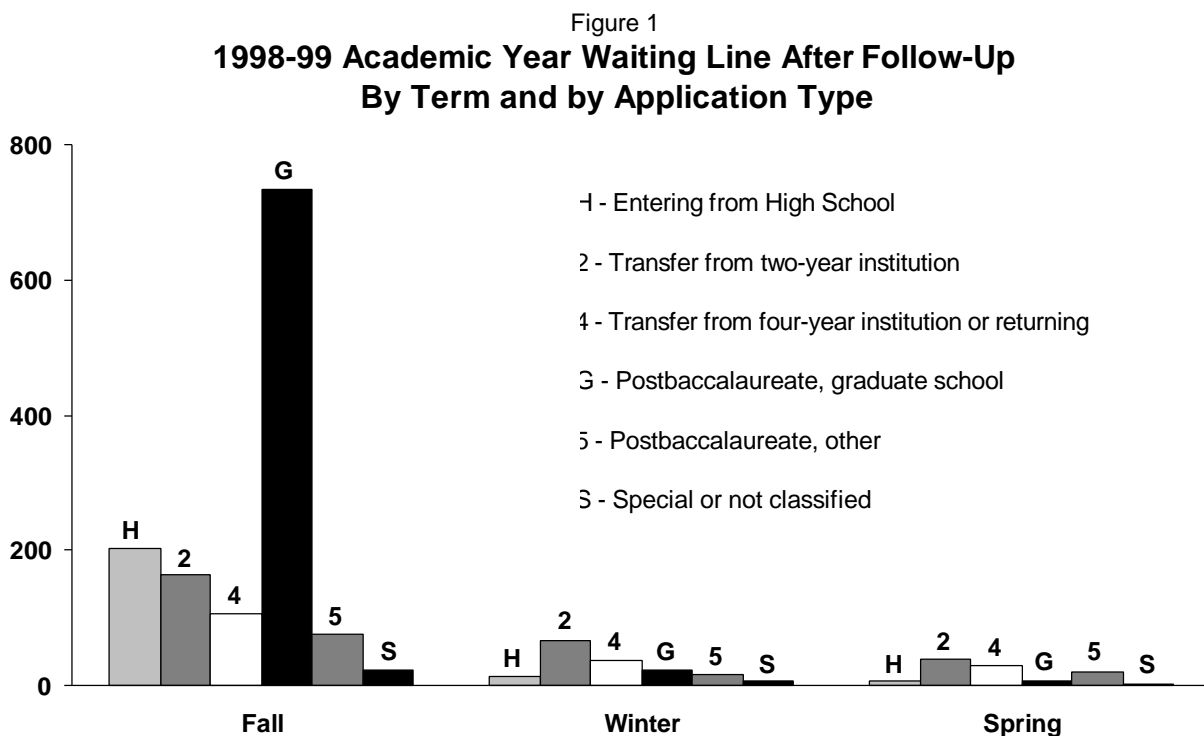
- Of the total 2,376 individual applicants unserved in the term for which they applied, 797 were subsequently enrolled or accepted for admission.
- 1,579 individuals, those represented by the shaded areas in Tables 2 and 3, were unserved both in the term for which they initially applied and through the following academic year.
- Most of the 1,579 unserved, over 96 percent, did not apply during the remainder of 1998-99 or during 1999-2000.

⁸ Transfers from two-year institutions are not necessarily transfers from institutions within the Washington community and technical college system, nor are they necessarily graduates of a two-year institution.

- Of the 1,579 unserved individuals, over 68 percent were applicants to graduate school or other post-baccalaureate programs.
- Approximately 64 percent of the 702 unserved applicants at the undergraduate level are transfers and/or returning students. Students entering from high school accounted for 223 of the unserved applicants.

Figure 1 is a graph depicting the information contained in the shaded portion of Table 3, but broken out by term (fall, winter, spring). Here, transfer applicants include any who have previously attended an institution of higher education, not necessarily in the immediately preceding term. Transfers from two-year institutions have not necessarily completed a two-year degree. Returning undergraduate students are included in the four-year transfer category.

- Graduate applicants and applicants entering from high school were concentrated in the fall term. Graduate applicants dominate the fall waiting line.
- The total count of transfer applicants not subsequently served, including returning student applicants, shows much less of a fall concentration, ranging from 271 for fall term and declining to 71 for spring term.



As a group, the 1998-99 unserved applicants generally had grade point averages and/or admission index scores toward the lower end of the admissible ranges. Table 4 shows college GPA, high school GPA, or admissions index, as appropriate, for the 702 unserved applicants for 1998-99 not classified as graduate or other post-baccalaureate applicants.

Table 4
**Grade Point Averages (GPA) and Admissions Indices (AI)
for 1998-99 Academic Year Waiting Line After Follow-Up,
Undergraduate Applicants**

Admissions Index	Applicants	High School GPA	Applicants	College GPA	Applicants	GPA and AI not reported
76+	5	3.50-4.00	1	3.50-4.00	1	157
51-75	76	3.00-3.49	4	3.00-3.49	87	
28-50	84	2.50-2.99	8	2.50-2.99	141	
13-27	25			2.00-2.49	113	

Unserved Applicants by Institution, 1998-99

Table 5 shows the breakout of the 1,579 unserved applicants for 1998-99 by institution and by application type. "Multiple" indicates that the applicants were denied admission by more than one institution.

Table 5
**1998-99 Academic Year Waiting Line After Follow-Up
by Institution and by Application Type**

	UW	WWU	EWU	TESC	CWU	WSU ⁹	Multiple ¹⁰	Total
Graduate	680	26	12	13	10	0	22	763
Other Post-Baccalaureate	85	26	0	0	0	0	3	114
Two-year Transfer	155	74	0	11	11	18	3	272
Four-year Transfer	74	32	0	7	2	10	1	126
Returning	28	14	0	0	3	0	0	45
High School	141	37	1	17	8	7	12	223
Special or Unclassified	21	5	10	0	0	0	0	36
Total	1,184	214	23	48	34	35	41	1,579

- Post-baccalaureate applicants, graduate and other, mainly to the University of Washington, account over 55 percent of the total unserved applicants for 1998-99.
- Transfer applicants and returning student applicants, mainly to the University of Washington and to Western Washington University, account for the next largest share, 28 percent, of the total 1998-99 waiting line and 54 percent of the undergraduate waiting line.
- Since Fall 1993, higher education institutions have been allowed to enroll students above the number of budgeted FTEs if, in their judgment, the additional students could be accommodated without harming the quality of education. For institutions enrolling more than the number of budgeted FTEs, the "waiting line" is probably smaller than it would have been otherwise.

⁹ WSU graduate applicant data is incomplete.

¹⁰ The 41 "multiple" applicants submitted 83 applications -- 45 to University of Washington campuses, 23 to Western Washington University, 4 to Eastern Washington University, 5 to Central Washington University, 5 to Washington State University, and 1 to The Evergreen State College.